Offhand hand off

Author: 'Prospector'

OVERVIEW

The Future Hospital Commission acknowledges that the principal challenge for healthcare organisations and professionals is to accept the fundamental requirement that patients must be treated with compassion, kindness and respect while having their physical and emotional needs met at all times. The recognition that clinical outcomes alone are an insufficient guide to the adequacy of health service provision demands cultural, organisational and individual change. In the Future Hospital Forum we scan the world literature for papers on systems of care that might best ensure these principles are delivered, and to critically evaluate their potential impact. The theme in this edition is integrated care.

Prospector was disheartened. He has been tasked with delivering a regular review of recent substantial journal papers related to the thematic content of the current edition of the FHJ. He attempted to include papers which will enlighten, energise and encourage debate. However, this month he has again been chipping through what has proved to be a thin vein of peer-reviewed material related to integrated care, which he fears is insufficient in weight to fully engage you, the committed *Future Hospitalist*. Despite this initial pessimism, a diligent search may have unearthed if not gems at least semi-precious stones to attract your attention.

Although the term Integrated Care is now used to define a brave new world of NHS (re)organisation, in the past it has been used to describe both pathways for the treatment of specific conditions as well as the coordination of care for specific populations with complex care needs such as the elderly.[1,2] Thus, the latest iteration advocating the collaboration of acute hospitals and community services in the provision of an integrated holistic health service, is only relatively recent currency.[3] With each advance, the scale of the integration being proposed has increased. While collaboration between the various providers of health services represents to many a common sense health policy, *Prospector* speculates that in one sense it seems like a return to an earlier time. That being said, to give NHS managerial visionaries credit, the system has become hugely more complex since the day when the patient's (single-handed, constantly available) GP would coordinate care with a local hospital providing comprehensive clinical and social services; their efforts being almost certainly recorded via the laborious exchange of typed and Xeroxed letters in a loose-leaf paper record. In the last few days before a general election (you will be reading this article in an alternative post-election reality) when *Prospector* is delivering his copy, he wonders if he is alone speculating not how relevant but how sustainable such a model of coordinated care will be if the providing partners are also competing for custom. Perhaps then, the term Integrated Care describes an enabling step in a potential transition to a model of care where NHS patients are integrated into a system wholly comprised of non-NHS providers. Back to the case in point – what to write about? Much of the recently published literature regarding integrated care is not peer reviewed or 'scientific' in the formal sense, while pilot studies and descriptive case reports abound. That being said, it seems reasonable to argue that major healthcare reorganisation cannot always emerge only from blinded placebo-controlled trials and several 'trial and error' exemplars are published in this issue of the Journal in support of that stance. Those tasked with leading policy change in the integrated direction have plenty of literature to guide them.[4–8]

Prospector therefore hopes you will forgive him as he retraces his steps to ask a related question; if integrated care represents the organisation of communication between institutional providers, what about the organisation of communication between carers within the hospital itself ie medical handover? The report of the Future Hospital Commission afforded considerable weight to this subject; indeed two of the eleven core principles of the Future Hospital are embodied within this process relating to robust arrangements for transferring of care and good communication with and about patients.

All of us who care for patients are responsible to a greater or lesser extent for handing over (or for handing off if working in North America) information regarding their management to colleagues. Current shift working patterns mandate at least two if not three handovers every day. We will come to discuss our performance in this exercise shortly but first *Prospector* directs you to a short yet insightful perspective written by Mitchell H Katz, the incumbent director of the Los Angeles County Department of Health Services, the United States' second largest health system.[9] In a balanced piece there is no romanticising of the past; indeed he asserts interns 'made mistakes in… fatigued states' and 'handovers were a pretty minor issue because we were always in the hospital'. The author accepts the necessary changes to duty hours but summarises his concerns regarding the adverse impact of handover, particularly the information lost, not only in measurable observations but the softer data 'about how a patient looks and the sense that you gain from spending time with (them)'. The piece is recommended for the lucid exposition of the various problems in conducting effective handover and the concluding challenge that senior staff as well as interns should take responsibility for the process.

Prospector has recently accepted responsibility for improving handover in two ward areas in which he works. He is therefore shifting uncomfortably in his chair as he proposes that you

peruse a study presented last year in the *Journal of the American Medical Association (JAMA) Internal Medicine* in which investigators used nursing notes and other computer records to assess the frequency of omission of clinically important overnight issues arising in medical ward patients (but not new admissions) during morning handover, and to identify factors that led to such errors.[10] Although the investigators were generous in giving the participants the benefit of the doubt when assessing their knowledge of overnight events and by also avoiding weekends as investigation days, the headline outcomes are still eye wateringly bad. The on-call trainee omitted 40.4% (95% confidence interval (CI) 32.3–48.5%) of clinically important issues during morning handover and did not document any information in the patient's medical record for 85.8% (95% CI 80.1–91.6%) of these issues. Some 36.9% (95% CI 28.9–44.8%) of clinically important issues were neither handed over nor documented by the on-call trainee. The factors which were identified as contributing to such inadequate performance are predictable enough: lack of time for handover, lack of structure to the handover process, failure to use a dedicated handover room, handover occurring through an intermediary and interruptions to the handover process were all recorded and will be recognisable by all. After multivariable analysis and correcting for the above factors, the single intervention which reliably improved performance was the use of a handover list in which all members of the medical team discussed each patient in turn. Although this is a simple study it deserves to be highlighted for assessing the sheer scale of the problem. Would the place where you work perform better than the two academic medical centres in Toronto where the study was performed if held to the same yardstick?

Prospector reminds himself that although he is an apostle perhaps there are still sceptics who do not see the core principles of handover as axiomatic, and may need further persuasion that change could be beneficial. A recent paper in the *New England Journal of Medicine (NEJM)*, echoing another slightly older study published by the same authors in *JAMA* suggests that improving handover can lead to real benefits for patients.[11,12] Both studies used the incidence of medical errors and adverse events as a primary outcome measure. In the first, involving more than 10,000 patients in nine US hospitals, the intervention consisted of the introduction of a mnemonic to standardise oral and written handoffs, handoff and communication training for trainees, training of senior doctors to observe and assess handoff, and a sustainability campaign. The medical-error rate significantly decreased by 23% (24.5 vs 18.8 per 100 admissions), and the rate of preventable adverse events decreased by 30% (4.7 vs 3.3 events per 100 admissions). The second study intervention was a similar mnemonic and structured handover, albeit in a paediatric population and demonstrated even more pronounced reductions in medical errors (33.8–18.3 per 100 admissions) and preventable adverse events (3.3–1.5 per 100 admissions). Both studies showed that workflow and overall time spent in handover remained the same after the intervention was introduced. Although the authors have explained the development of their handover intervention in further papers there are many alternative strategies outlined in the published literature.[13,14] However, correspondence following publication of the *NEJM* paper highlights the fact that the study intervention in reality consisted of cultural change involving all members of the clinical staff and that this is required to make effective lasting changes.[15] To support the contention that this, rather than the specific tool used, is the important factor explaining the success seen above, *Prospector* mentions a theoretical perspective, which is probably of interest only to those tasked with developing handover but which is nevertheless extremely thought provoking.[16] The authors assert that many of the structured interventions and checklists used in practice run counter to our natural facility to communicate complex detail rich information as narrative–perhaps the 'softer data' referred to by Katz. They argue cogently that while effective handover may require checklists, we must continue to practice the narrative skills required to present a medical history effectively and succinctly.

To conclude, whatever system arises following the proposed integration of hospital and community health and social services, processes which prioritise and facilitate communication will be essential both between institutional providers but also between individuals. Evidence and experience suggest that our practice of the discipline of handover must improve if we are to the meet the standards of safety and excellence called for in the Future Hospital. ■

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